

#3718  
OK

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

---

May 5, 2011

TO: Internal File

THRU: Steve Christensen, Lead *SC*

FROM: Kevin Lundmark, Hydrologist *KWL*

RE: Phase III Bond Release Old Coarse Refuse Road, Sunnyside Cogeneration Associates, Sunnyside Refuse and Slurry, C0070035 Task ID# 3718

### SUMMARY:

On December 21, 2010 the Division received an Application for Phase III Bond Release from Sunnyside Cogeneration Associates (SCA) for the Sunnyside Refuse and Slurry site. SCA is requesting Phase III Bond Release for three parcels along the southern slope of the site which comprise approximately 5.35 acres. Reclamation work on the Old Coarse Refuse Road (OCRR) Phase III Bond Release Area was completed in fall of 1994. Phase I Bond Release for this area was approved on October 10, 1997. SCA has not applied for Phase II Bond Release for this area, therefore this application is being reviewed against the requirements for both Phase II and III Bond Release.

This memo reviews the application for the hydrology discipline under the Utah under the Utah R645 Coal Rules. R645-301-880.320 (Phase II Bond Release) states that no part of the bond or deposit will be released under this paragraph so long as the lands to which the release would be applicable are contributing suspended solids to streamflow or runoff outside the permit area in excess of the requirements set by UCA 40-10-17(2)(j) of the Act (minimizing disturbance to the hydrologic balance) and by R645-301-751 (Water Quality Standards and Effluent Limitations). Hydrologic reclamation requirements are found in R645-301-760.

Based on the analysis and findings contained herewith, the application is recommended for approval at this time.

---

TECHNICAL MEMO

---

**TECHNICAL ANALYSIS:**

**OPERATION PLAN**

**HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

**Analysis:**

Sediment control for the OCRR Phase III Bond Release Area is provided by UPDES-permitted sediment ponds and through Alternative Sediment Controls. These sediment control measures are described below.

**Siltation Structures: Sedimentation Ponds**

Outfalls from sediment ponds at the site are permitted under UPDES Permit No. UT0024759. The Phase III Bond Release area is within the drainage areas of two sediment ponds: Old Coarse Refuse Road Pond (Outfall 008) and Rail Cut Pond (Outfall 007). Sediment ponds and associated drainage areas are shown on MRP Plate 7-1. The Old Coarse Refuse Road Pond receives drainage from the eastern portions of the Phase II Bond Release Area which area adjacent to the east slurry cell. The Rail Cut Pond receives drainage from the western portion of the OCRR Phase III Bond Release Area.

A review of monitoring data submitted by SCA to the Division's water database indicates that there has never been a discharge from Outfall 008 and Outfall 007 has only discharged twice, on 9/10/1991 and 8/10/1994. Based on available monitoring data, the OCRR Phase III Bond Release Area has not contributed suspended solids to streamflow or runoff outside the permit area since the reclamation work was completed in fall of 1994.

**Other Sediment Control Measures**

The portion of the OCRR Phase III Bond Release Area which does not drain to sediment ponds is designated as an Alternative Sediment Control Area / Best Technology Currently Available Area on Plate 7-1. In this area, sediment control is provided by vegetation and surface roughening. An inspection performed on April 5, 2011 found that reclamation activities in this area have stabilized soil and that there is no indication of erosion occurring from the area.

Icelander Creek is classified as designated uses 2B / 3C / 4 (Price River and tributaries, from confluence with Green River to Carbon Canal Diversion at Price City Golf Course). Monitoring data for location ICE-1 show that Icelander Creek below the SCA permit area has never violated the water quality criteria for dissolved oxygen and dissolved iron. There has been one reported pH value which is outside the range of 6.5 to 9.0 (pH 9.1 on 12/7/1992). Total dissolved solids (TDS) have exceeded the 3,000 mg/L criterion two times: 3,174 mg/L on 11/19/2008 and 3,956 mg/L on 11/19/2001. Water quality standards are not established for TSS. TSS values reported for Icelander Creek location ICE-1 have been less than 50 mg/L except for three events (62 mg/L 12/7/1992, 71 mg/L 4/19/1994, 121 mg/L 3/21/2007). The monitoring data for Icelander Creek below the permit boundary demonstrate that the site is not contributing suspended solids to streamflow outside the permit area and that the water is of sufficient quality to meet is designated uses.

#### **Findings:**

The available data indicate that OCRR Phase III Bond Release Area is not contributing suspended solids to streamflow or runoff outside the permit area in excess of the requirements set by UCA 40-10-17(2)(j) of the Act and by R645-301-751; therefore, the OCRR Phase III Bond Release Area meets the hydrology-related requirements for Phase II Bond Release under the Utah R645 Coal Rules.

## **RECLAMATION PLAN**

### **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

#### **Analysis:**

##### **Hydrologic Reclamation Plan**

No temporary structures are present within the OCRR Phase III Bond Release Area. The OCRR Phase III Bond Release Area does not include any permanent sedimentation ponds, diversions, impoundments or treatment facilities. The portions of the OCRR Phase III Bond Release Area which are below the East Slurry Cell are spilt by permanent structures OCRR-FD1 / OCRR-FC1 / OCRR-FD2, as shown on Plate 10-5 (Final Reclamation Drainage and Diversion Plan). These structures have already been constructed in their final configurations; therefore

---

TECHNICAL MEMO

---

additional construction is not necessary. However, these structures may require access / maintenance in the future to remove coal fines prior to final bond release.

**Findings:**

The application meets the Hydrologic Reclamation Plan requirements under the Utah R645 Coal Rules.

**RECOMMENDATIONS:**

The application is recommended for approval at this time.

O:\007035.SRS\WG3718\WG3718\_KWL.doc